

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in this Application:

Listing of Claims:

1. (Currently Amended) A method for the production of acrylic acid comprising a step of introducing a mixed gas containing propylene and molecular oxygen into a first reaction zone packed with a complex oxide catalyst having molybdenum and bismuth as essential components and oxidizing propylene and obtaining an acrolein-containing gas, a step of introducing said acrolein-containing gas into a second reaction zone packed with a complex oxide catalyst having molybdenum and vanadium as essential components and obtaining an acrylic acid-containing gas, and a step of introducing said acrylic acid-containing gas into an acrylic acid absorption column and causing it to contact an absorbent water thereby obtaining an acrylic acid-containing solution which comprises the steps of

(a) said first reaction zone and said second reaction zone being formed in a single reactor by dividing reaction tubes with at least one perforated tube plate,

(b) said mixed gas for introduction into said first reaction zone having a propylene concentration in the range of 7 - 15 vol. % and a water concentration in the range of 0 - 10 vol. %, and

(c) said absorbent water is introduced into said acrylic acid absorption column at a mass flow rate in the range of 0.1 - 1.5 times the mass flow rate of propylene introduced into said first reaction zone, and

(d) said acrylic acid-containing solution obtained in said acrylic acid absorption column having a water concentration in the range of 1 - 45 wt. %.

2. (Cancelled)

3. (Original) A method according to claim 1, wherein a main component of said absorbent water is water.

4. (Currently Amended) A method for the production of acrylic acid comprising a step of introducing a mixed gas containing propylene and molecular oxygen into a first reaction zone packed with a complex oxide catalyst having molybdenum and bismuth as essential components

and oxidizing propylene and obtaining an acrolein-containing gas, a step of introducing said acrolein-containing gas into a second reaction zone packed with a complex oxide catalyst having molybdenum and vanadium as essential components and obtaining an acrylic acid-containing gas, and a step of introducing said acrylic acid-containing gas into an acrylic acid absorption column and causing it to contact an absorbent water thereby obtaining an acrylic acid-containing solution which comprises the steps of

- (a) said first reaction zone and said second reaction zone being formed in a single reactor by dividing reaction tubes with at least one perforated tube plate,
- (b) said propylene concentration of said mixed gas introduced into said first reaction zone being in the range of 7 - 15 vol. % and the water concentration in said mixed gas being in the range of 0 - 10 vol. %, and
- (c) said absorbent water to be introduced is 0.1 - 1.5 times the mass flow amount of propylene introduced into said first reaction zone, and
- (d) said water concentration of said acrylic acid-containing solution obtained in the acrylic acid absorption column being adjusted to a level in the range of 1 - 45 wt. % by adjusting the amount of an absorbent water to be introduced.

- 5. (Cancelled)
- 6. (Previously Presented) A method for the production of polyacrylic acid comprising the step of polymerizing the acrylic acid obtained by the method set forth in claim 1.
- 7. (Previously Presented) A method for the production of polyacrylic acid comprising using the acrylic acid obtained by the method set forth in claim 3.